

Nano Science, Technology and Industry Scoreboard

Open Care Announces Immubio Platform Based on Nanoparticle Science, Currently Developing Potential Break-Through COVID-19 Immunisation

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OpenCare have announced the progress of their early-stage development of their potential COVID-19 Immunisation, ImmubioCV, based on Nanobiologics, a new approach centered on nanoparticles, water coherent domains and ultra dilutions that allows for the preparation of potentially safe, effective and readily scalable immunisations using a novel patent pending process.

Open Care, the biotech company behind Immubio, an immunisation development and delivery platform, designed to produce immunisations that are highly effective at modulating the immune response has taken a multidisciplinary approach to disease prevention. With their formulation design complete, the company is now preparing for pre-clinical studies ahead of clinical trials.

Immubio has the potential to deliver oral liquid immunisations that are inherently safe, adaptable to strain mutation, can be stored and distributed at room temperature and rapidly scaled to billions of doses at a significantly lowered cost to traditional vaccines.

The company has revealed a breakthrough in nanoparticle science - the Immubio platform that combines ultra-diluted, patent pending antigen called Nantigen and Moleculebase, a framework for specific molecule selection to safely prime targeted mechanisms. The Immubio platform development offers potential in positive physiological outcomes to target and prevent infectious diseases.

Wesley Cooke, Open Care's Founder and Chief Executive Officer, has described the Immubio platform and Nanobiologics as an "incredibly exciting field of nanoparticle science that could rewrite how we approach and protect the world from infectious diseases like SARS-COV-2, the novel coronavirus."

Pending completion of trials and approval by regulatory authorities, ImmubioCV could supply billions of doses by late 2021 given its composition and use of nanoparticles which could provide a much-needed solution to the current accessibility and affordability crisis.

Mr Cooke added: "This is a completely novel approach to immunity that holds great promise for the billions of people globally currently disadvantaged because of the COVID-19 pandemic. What we are dealing with now is an issue regarding affordability and equitable access for the world's poorest."

In terms of targeting the virus and working differently to traditional vaccines, the aim of ImmubioCV is to prime and prepare the immune system safely. It is expected this will help the body to stop the disease from progressing and enable it to develop an appropriate immune response.

"Based on this platform, a careful and comprehensive analysis of scientific evidence on pathogenesis, immune response and clinical observations from a particular disease allows us to link a broad spectrum of reactions occurring during the course of the disease to specific known pathways that contribute to, and are part of, the homeostatic mechanisms." Chief Immubio Scientist, Dr Gustavo Bracho has said.

Open Care are also optimistic that this potential break-through in nanoparticle science will not only be successful in severely reducing the incidence of infectious disease but could lead to "complete control of epidemics".

Marco Stacke, Open Care's Chief Operations Officer, has said that "due to its unique speed to market and the immediate response to a new pathogen, Immubio could greatly reduce the human and economic costs of a pandemic."

The manufacturing and distribution of ImmubioCV is planned to take place in <u>Germany</u> through strategic partnerships designed to establish a manufacturing facility dedicated to Open Care's technology, including a state-of-the-art Research and Development lab.

Open Care are currently finalising initial partnerships and are seeking additional international collaboration to secure the remaining materials required to complete their formula to begin their pre-clinical studies.

The company is in early-stage discussions with leading Contract Research Organisations to implement a global trial across multiple countries. The company plans to begin Phase 1 of their human trials in Q2 of 2021 for ImmubioCV after the pre-clinical phase has finalised.

The team at Open Care will also be developing a digital health app and immunisation certificate program. The company is in the process of relocating their head office to Switzerland in order to be closer to their planned manufacturing facilities in Germany, and have signed engagement letters with leading life science firms including legal and regulatory to enable the transition and commercialisation of the Immubio platform.

Patent protection has been applied for with the European Patent Office for their novel platform and processes. The company is now seeking investment and is open for their first round of funding to commercialise ImmubioCV with details available on their website.

Read the original article on Open Care.